

WHAT IS CLAIMED IS:

- 1 1. An oximeter sensor, comprising:
2 a substrate having a shape similar to a shape of at least a portion of a patient's
3 forehead and including a section adapted to substantially fit over a portion of a forehead of a
4 patient;
5 an emitter disposed on said substrate at a position located on said section; and
6 a detector disposed on said substrate at a distance from said emitter.
- 1 2. The sensor of claim 1 wherein said substrate is resilient and has a
2 shape conformable to the forehead of a patient.
- 1 3. The sensor of claim 1 wherein said substrate comprises an adhesive
2 layer for adhering to the forehead of a patient.
- 1 4. The sensor of claim 1 wherein said substrate comprises a darkened
2 layer so as to minimize the incidence of reflected light that does not go through the tissue of a
3 patient onto said detector.
- 1 5. The sensor of claim 1 further comprising leads connected to said
2 emitter and said detector, said leads extending along said substrate away from one of the top
3 or a side of a patient's forehead.
- 1 6. The sensor of claim 1 further comprising a hat for holding said
2 substrate against the patient's forehead.
- 1 7. The sensor of claim 6 wherein said substrate is adhered to the inside of
2 said hat.
- 1 8. The sensor of claim 7 wherein said substrate is adhesively adhered to
2 the inside of said hat.
- 1 9. The sensor of claim 1 wherein said substrate comprises a plurality of
2 laminated layers.
- 1 10. An oximeter sensor, comprising:

2 a substrate having a shape similar to a shape of at least a portion of a patient's
3 forehead and including a section adapted to substantially fit over a portion of a forehead of a
4 patient;

5 an emitter disposed on said substrate at a position located on said section;
6 a detector disposed on said substrate at a distance from said emitter; and
7 a hat for holding said substrate against the patient's forehead.

1 11. A method for determination of a blood characteristic, comprising:
2 applying an emitter and a detector to spaced-apart positions on a forehead of a
3 patient in the lower forehead region, above the eyebrow, with both the detector and the
4 emitter placed lateral of the iris;

5 securing said emitter and detector to said patient;
6 emitting electromagnetic radiation with said emitter;
7 detecting electromagnetic radiation scattered by the forehead by said detector
8 and producing a detector signal; and
9 determining a blood characteristic in the patient from said detector signal.

1 12. The method of claim 11 wherein said blood characteristic is oxygen
2 saturation.

1 13. The method of claim 11 wherein said securing comprises placing a hat
2 over said emitter and said detector.

1 14. The method of claim 11 wherein said securing comprises securing said
2 emitter and said detector to the patient by attaching said emitter and said detector to an inside
3 of a hat, and placing said hat on the head of the patient.

1 15. The method of claim 11 comprising detecting light reflected from the
2 forehead of the patient with said detector.

1 16. A method for determination of a blood characteristic, comprising:
2 applying an emitter and a detector to spaced-apart positions on a forehead of a
3 patient in the lower forehead region, above the eyebrow, with both the detector and the
4 emitter placed lateral of the iris;
5 securing said emitter and detector to said patient, by attaching said emitter and
6 said detector to an inside of a hat, and placing said hat on the head of the patient;

7 emitting electromagnetic radiation with said emitter;
8 detecting electromagnetic radiation scattered by the forehead by said detector
9 and producing a detector signal; and
10 determining a blood characteristic in the patient from said detector signal.

1 17. The method of claim 16 wherein said blood characteristic is oxygen
2 saturation.